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SEQUENCE LISTING

<110> Gangolli, Esha A
Stone, David J

<120> ENDOZEPINE-LIKE PROTEINS, POLYNUCLEOTIDES ENCODING THEM
AND METHODS OF USING THE SAME

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          35                      40                      45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr
          50                      55                      60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
          65                      70                      75                      80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
          85                      90                      95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
          100                     105                     110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met
          115                     120                     125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
          130                     135                     140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
          145                     150                     155                     160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn
          165                     170                     175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
          180                     185                     190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu

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195	200	205
Val Lys Gly Ala Glu Gln Ser Asp Asn Asp Lys Lys Met Met Lys Lys 210 215 220		
Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp 225 230 235 240		
Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser 245 250 255		
Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn 260 265 270		
Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Asp Ile Asn 275 280 285		
Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp 290 295 300		
Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu 305 310 315 320		
Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr 325 330 335		
Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu 340 345 350		
Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val 355 360 365		
Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly 370 375 380		
Arg Asn Asn Ser Gly Ala Leu His Arg Glu Lys Arg Gly Gly Glu Thr 385 390 395 400		
Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His 405 410 415		
Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly 420 425 430		
Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln 435 440 445		
Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu 450 455 460		
Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Leu Gln Ala Lys Ser 465 470 475 480		
Ser Thr Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Gln Arg Pro 485 490 495		
Ser Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile		

500 505 510
 Ile Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg
 515 520 525
 Arg Arg Arg Lys Leu Asn
 530

<210> 11
 <211> 89
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Acyl CoA
 binding protein domain sequence

<400> 11
 Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
 1 5 10 15
 Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
 20 25 30
 Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
 35 40 45
 Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu
 50 55 60
 Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
 65 70 75 80
 Val Glu Glu Leu Ile Ala Lys Tyr Ala
 85

<210> 12
 <211> 89
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Acyl CoA
 binding protein domain sequence

<400> 12
 Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
 1 5 10 15
 Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
 20 25 30
 Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
 35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu
50 55 60

Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 13

<211> 534

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<222> (3)...(3)

<223> "Xaa" = "Ile", "Leu", "Val" or "Phe"

<400> 13

Met Tyr Xaa Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu
20 25 30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala
35 40 45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Asp Ser Phe Gln Pro Thr
50 55 60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
65 70 75 80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
85 90 95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
100 105 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met
115 120 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
130 135 140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
145 150 155 160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn
165 170 175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu
 195 200 205
 Val Lys Gly Ala Glu Gln Ser Asp Asn Asp Lys Lys Met Met Lys Lys
 210 215 220
 Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
 225 230 235 240
 Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
 245 250 255
 Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
 260 265 270
 Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Asp Ile Asn
 275 280 285
 Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
 290 295 300
 Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
 305 310 315 320
 Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr
 325 330 335
 Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu
 340 345 350
 Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val
 355 360 365
 Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly
 370 375 380
 Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr
 385 390 395 400
 Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His
 405 410 415
 Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly
 420 425 430
 Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln
 435 440 445
 Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
 450 455 460
 Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Leu Gln Ala Lys Ser
 465 470 475 480
 Ser Thr Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Gln Arg Pro
 485 490 495

Ser Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile
500 505 510

Ile Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg
515 520 525

Arg Arg Arg Lys Leu Asn
530

<210> 14

<211> 536

<212> PRT

<213> Homo sapiens

<400> 14

Met Leu Phe Leu Ser Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys
1 5 10 15

Cys Cys Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp
20 25 30

Gln Leu Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu
35 40 45

Ala Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln
50 55 60

Pro Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala
65 70 75 80

Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile
85 90 95

Gly Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys
100 105 110

Glu Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu
115 120 125

Thr Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly
130 135 140

Pro Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp
145 150 155 160

Ile Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu
165 170 175

Gly Asn Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys
180 185 190

Ala Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln
195 200 205

Glu Glu Val Lys Gly Ala Glu Gln Ser Asp Asn Asp Lys Lys Met Met
210 215 220

Lys Lys Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly
 225 230 235 240
 Tyr Asp Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala
 245 250 255
 Ser Ser Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp
 260 265 270
 Glu Asn Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Asp
 275 280 285
 Ile Asn Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr
 290 295 300
 Ser Asp Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly
 305 310 315 320
 Gln Glu Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln
 325 330 335
 Tyr Tyr Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe
 340 345 350
 Arg Glu Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met
 355 360 365
 Gln Val Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu
 370 375 380
 Asp Gly Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly
 385 390 395 400
 Glu Thr Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met
 405 410 415
 Gln His Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly
 420 425 430
 Asp Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn
 435 440 445
 Glu Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn
 450 455 460
 Val Leu Gln Arg Leu Gln Lys Leu Glu Met Leu Thr Ala Leu Gln Ala
 465 470 475 480
 Lys Ser Ser Thr Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Gln
 485 490 495
 Arg Pro Ser Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe
 500 505 510
 Ala Ile Ile Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr
 515 520 525

Gln Arg Arg Arg Arg Lys Leu Asn
 530 535

<210> 15
 <211> 533
 <212> PRT
 <213> Homo sapiens

<400> 15
 Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
 1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg
 20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala
 35 40 45

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro
 50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr
 65 70 75 80

Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp Pro Val Gly
 85 90 95

Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu
 100 105 110

Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Leu Glu Thr
 115 120 125

Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu His Val Ile Gly Pro
 130 135 140

Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Leu
 145 150 155 160

Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly
 165 170 175

Asn Val Leu Ala Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala
 180 185 190

Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Ala Gln Glu
 195 200 205

Asp Pro Lys Arg Pro Glu Pro Arg Asp Ser Asp Lys Lys Met Met Lys
 210 215 220

Lys Ser Ala Asp His Lys Asn Leu Glu Ile Ile Val Thr Asn Gly Tyr
 225 230 235 240

Asp Lys Asp Ser Phe Val Gln Gly Val Gln Asn Ser Ile His Thr Ser

<210> 16
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 16
 ccttttgggg catgttgatc cg 22

 <210> 17
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 17
 cagttccagt agtcttcttg aggaaaacac ca 32

 <210> 18
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 18
 aggcaaatc atcaacatca ac 22

 <210> 19
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 19
 ctcagcccac ctcacagaga ccatct 26

 <210> 20
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 20
 ttagcacacc aggagacatc tc 22

<210> 21
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 21
 aatcatcaac atcaacattg ca 22

<210> 22
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 22
 ctcagcccac ctcacagaga ccatct 26

<210> 23
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 23
 gttagcacac caggagacat ct 22

<210> 24
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 24

atcagaactc ctgccactct tt 22

<210> 25
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 25
tggacctatg acacgcagca attctt 26

<210> 26
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 26
atgccaatga ctgagaaagt tg 22

<210> 27
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 27
tattacttgg gtggtcattc ca 22

<210> 28
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer
Sequence

<400> 28
caacccatgg aaaattctgg atttcg 26

<210> 29
<211> 22

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 29
 atattcccaa tgttgccatt tc 22

 <210> 30
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 30
 agaaaaccac aggaagaatg gt 22

 <210> 31
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 31
 cactttgtgg gctgcccata atcttt 26

 <210> 32
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 32
 ataatgatgc ctgaacacca aa 22

 <210> 33
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer

Sequence

<400> 33 aggcaaaatc atcaacatca ac	22
<210> 34 <211> 26 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 34 ctcagcccac ctcacagaga ccatct	26
<210> 35 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 35 ttagcacacc aggagacatc tc	22
<210> 36 <211> 20 <212> DNA <213> Artificial Sequence	
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<400> 36 gacctatgac acgcagcaat	20
<210> 37 <211> 26 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 37 tcttcaactt tctcagtcac tggcat	26

<210> 38
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 38
 ggaagccatg attgcatatg 20

 <210> 39
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 39
 aggcaaaatc atcaacatca ac 22

 <210> 40
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 40
 ctcagccac ctcacagaga ccatct 26

 <210> 41
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 41
 ttagcacacc aggagacatc tc 22

 <210> 42
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 42
 aatcatcaac atcaacattg ca 22

<210> 43
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 43
 ctcagccac ctcacagaga ccatct 26

<210> 44
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 44
 gttagcacac caggagacat ct 22

<210> 45
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 45
 atcagaactc ctgccactct tt 22

<210> 46
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 46
 tggacctatg acacgcagca attctt 26

<210> 47
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 47
 atgccaatga ctgagaaagt tg 22

<210> 48
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 48
 tattacttgg gtggtcattc ca 22

<210> 49
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 49
 caacccatgg aaaattctgg atttcg 26

<210> 50
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

<400> 50
 atattcccaa tgttgccatt tc 22

<210> 51

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 51
 aggcaaaatc atcaacatca ac 22

 <210> 52
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 52
 ctcagcccac ctcacagaga ccatct 26

 <210> 53
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 53
 ttagcacacc aggagacatc tc 22

 <210> 54
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR Primer
 Sequence

 <400> 54
 gacctatgac acgcagcaat 20

 <210> 55
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: PCR Primer Sequence

<400> 55
tcttcaactt tctcagtcac tggcat 26

<210> 56
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer Sequence

<400> 56
ggaagccatg attgcatatg 20

<210> 57
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer Sequence

<400> 57
tggcaggagt tctgatataa cc 22

<210> 58
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer Sequence

<400> 58
tcagtccgac tggagaaaat ctctaa 26

<210> 59
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR Primer Sequence

<400> 59
gcgtttggag tagaagtgag aa 22

<210> 60	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 60	
tggcaggagt tctgatataa cc	22
<210> 61	
<211> 26	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 61	
tcagtccgac tggagaaaat ctctaa	26
<210> 62	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: PCR Primer Sequence	
<400> 62	
gcgtttggag tagaagtgag aa	22